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Twenty-first Century Leadership: Perils and Solutions

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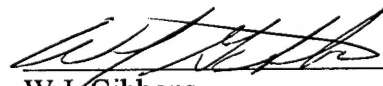
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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract of

Twenty-first Century Leadership: Perils and Solutions

Twenty-first century military leaders will operate on a battlefield that is fast-paced, fluid, and highly lethal. Technological systems will provide commanders with unlimited information and military capabilities on that battlefield. The development of our future military leaders will require special knowledge, skills, and abilities to sufficiently prepare them to operate in that environment.

This paper will contend that immediate changes are needed to our education processes to create leaders at all levels that are more jointly educated and oriented. Changes in joint education and joint exposure are recommended. Concurrently, changes are needed in the way that future military leaders will make and implement decisions. Proposals are offered to improve decision making skills and decentralized execution.

The combination of current military skills development, enhanced joint training, and decentralized, intuitive decision making offers the proper balance for development of future leaders. This combination is necessary to sufficiently prepare the human element of leadership to be compatible with the technological capabilities that will be available on the twenty-first century battlefield.

Twenty-first Century Leadership: Perils and Solutions

While technology will be a significant aid in battle command, the constantly changing nature of battle requires the adaptability, judgment, and intuition that only the human dimension -- the commander -- can bring. Human beings input the information, make decisions based upon it, and act upon it.

TRADOC PAM 525-5¹

Thesis:

Impacts of the Information Age are readily apparent. Technological advances are occurring at an unprecedented rate and show no sign of slowing down. These advances will provide future military leaders with unlimited information and military capabilities on the future battlefield. However, our current training, leadership, and decision making methods will not adequately prepare our twenty-first century leaders to successfully operate in this environment. Changes are needed which will provide special knowledge and skills to our future leaders throughout their career development. Those changes are logical, feasible, and long overdue.

The Future Battlefield

The battlefield of 2010 or 2015 or 2020 will surely look much different than the battlefield of today or yesterday. While we cannot describe with certainty the specifics of that future battlefield, we can consider concepts and ongoing technological advances as a baseline from which to train and develop. Regardless of whether or not you agree with the strategic concepts of Joint Vision 2010, From the Sea, or Force XXI, these visions of twenty-first century warfare point to common capabilities on the future battlefield. From these concepts, terms such as "joint warfare", "information dominance", "battlespace awareness", "dominant maneuver", and "precision engagement" are not just buzzwords--they are characteristic capabilities. From these battlefield

characteristics we can identify some of the skills and knowledge that are needed for future leaders to successfully operate in that environment. To properly prepare our future leaders, we have to provide training methods that develop those assets. Unfortunately, the plans for development of our leaders have not kept pace with our plans for developing the battlefield doctrine. Seth Cropsey queries:

A lot of hard work and questioning of basic assumptions went into "...From the Sea". As the Navy and Marine Corps follow the heading it wisely established, will the same effort go into the molding and selection of tomorrow's leaders?²

The needed solution is to synchronize the capabilities of the future battlefield with the training requirements for our future leaders.

Knowledge And Skill Requirements

Unquestionably, for U.S. forces, the future battlefield will be a joint endeavor. The days of single service operations are over. Whether involved in a Major Theater War (MTW) or Military Operations Other Than War (MOOTW), each branch of service provides capabilities that are strengthened when complemented with capabilities from the other services. This combination of capabilities produces a highly desired synergistic effect. The services depend upon this synergy for success. Our future leaders will have to be proficient with their own service capabilities but will also be immersed in a joint environment; they will have to be more proficient with joint knowledge and skills than ever before. Leaders who have "joint ignorance" will be less effective in a joint operation and will detract from the synergistic effect which will increase the risk to all involved.

Information Age technology will also allow unprecedented battlefield awareness by U.S. forces. Commanders at all levels will have ready access to an unending amount of information. Commanders will be able to see real-time three-dimensional graphic displays of their actual battlespace including friendly and enemy forces, obstacles, terrain, control measures, and vast quantities of other tidbits of information as they occur. With better battlespace awareness than the opposition, U.S. forces will have a distinct

advantage over enemy forces. When this advantage is combined with speed, superior firepower, and maneuver warfare, U.S. forces should be able to achieve battlespace dominance. In this concept, the battlefield is characterized by speed, lethality, and constant movement based on information flow.

To be successful in such an environment, commanders at all levels will have to be able to assess large volumes of information, filter out the extraneous portions, and translate the remainder into applicable bits of information. They must be able to make accurate, common-sense decisions about firepower, maneuver, and integrated forces. They must be able to accomplish these tasks while under extreme conditions and stress and in short periods of time. But, haven't commanders been faced with similar circumstances throughout time? The answer is, "to a certain degree". The future battlefield will be a much more fluid and rapidly changing environment than those of the past. Reaction time and time for decision making will be severely compressed. Additionally, the flow of information will be endless, whether you need it or not. Many of us remember situations in the past during operations or exercises when we felt that we were in an information vacuum; there was a void of information (for whatever reason) that left us "in the dark". Commanders on the future battlefield will not have to worry about the information void. Rather, commanders are going to receive an overabundance of information as a fallout of information dominance. Large portions of this information may or may not even be what the commander needs but he is going to get it anyway, just like junk mail. Information overload can easily occur which can stifle a commander's decision making capabilities. D.T. Ogilvie suggests that:

Although analytical decision making models call for as much data as possible in order to reduce uncertainty, much of the data is not useful for complicated military situations and human decision makers face cognitive limitations that technology does not.³

While commanders must be able to work with all these technological advances, they must not become overly dependent upon them. If a video screen will provide

commanders with such precise information, it will be difficult to walk away from that screen. However, commanders are leaders and they do not lead computers; they lead people. As Harig suggests:

Leadership is very personal. Technology can extend but not supplant the human dimension of leadership. High tech would produce a generation of leaders that is so insecure without their computer models and design systems that they could not step beyond them.⁴

Several years ago, while serving as a Battalion Operations Officer during a field exercise, I directed a junior officer, Lieutenant Smythe, to prepare and lead a night reconnaissance patrol. Smythe was a sharp, well-educated officer but he had not conducted a night patrol with troops. The patrol route overlay that Smythe submitted was poorly done. His route included too many azimuth changes and segments for an inexperienced patrol to conduct on a dark, moonless night over a flat area that had very few prominent terrain features. When I pointed this out to Smythe, he was not the least bit concerned; he was completely confident because he planned to use a highly accurate, hand-held Global Positioning System (GPS). I suggested that Smythe change his patrol route and that he make a second copy of his intended azimuths and coordinates. He did neither and marched confidently off into the dark. Sometime later, two patrol members, who had the only map, fell into a small ravine and were hopelessly separated from the patrol. They returned to the command post separately but Smythe, his GPS, and the remainder of the patrol were hopelessly lost. By using the GPS, Smythe knew exactly where he was standing, but without a map or list of coordinates, he had no idea of which way to go. When the batteries on the GPS died, Smythe had no choice but to sit and wait to be found. Eventually, we found the patrol and Smythe learned a valuable lesson. This is a simple story and one that easily can be discounted because Smythe was an inexperienced junior officer. However, the lives of fellow Marines were dependent upon Smythe and his leadership and that can never be discounted. Modern technology is accurate and capable but commanders cannot rely too heavily upon it. Technology will

not replace leadership skills and military skills. For the future battlefield, more than ever, commanders at all levels must develop solid military skills and only then must adopt the use of computers and other technology to complement those skills.

A final category of future requirements and characteristics is highlighted by the U.S. Marine Corps' Sea Dragon initiative. Under the concepts of this program, information and firepower are made available to small, mobile teams that traverse a battlefield. By using a network of information technology and sensors, the teams would be able to bring large volumes of accurate fire on enemy forces without the necessity of massing friendly forces. Sensor-to-shooter weapons systems and freedom of movement will provide teams with great versatility, lethality, and responsibility.

In a Sea Dragon scenario, commanders will face a greater need for centralized direction and decentralized execution. Employing highly capable small units in such a fashion can mean that actions on the battlefield may have operational or even strategic impacts, and yet, the commander may not even be present. Our forces and commanders at all levels must then be trained to operate on their own and to take supportive actions while under an umbrella of broad guidance from superiors.

To recap this list of special knowledge and skills, it appears that for our future leaders, we need a group of super-intelligent, physically fit, steely-eyed killers who are equally capable of leading or following others either on their own or as a member of a team, with or without specific direction, and who are willing to risk their lives to do so. They must have the ability, while under stress and extreme conditions, to quickly make life or death decisions about a variety of forces and equipment while constantly being fed an unending flow of continually changing information. And, of course, they need to be willing to provide their contribution for a somewhat meager salary and the opportunity to move to another location every two or three years. So, where do we find these specialists? Imagine a newspaper advertisement for "Help Wanted" with the details listed above. The reality is that leaders such as these cannot be hired or plucked from

trees; they have to be developed.

No Deletions; Additions Only

So much for the bad news. The good news is that the services do not have to start over; we have been doing it right all along. We need to continue to develop tough, human leadership-oriented leaders that have extensive knowledge and experience within their respective branches of service. We need to continue to train in varying climates, under extreme conditions, with and without the benefit of technology. We need to continue to develop military skills which help us to survive in combat situations. To properly develop our future leaders, we do not need deletions from our current programs; we need additions. This is key to our understanding and future success. Our future leaders must build upon their warrior skills and service education to continue to provide the synergistic effect of individual and joint contributions.

There are numerous opinions on how best to develop the needed qualities in our future leaders but they generally revolve around two basic schools of thought. One faction opines that we should change the education process for future leaders and the other faction would suggest that we should change our leadership and decision making styles. A tremendous amount of information had been written in support of each theory, but the reality is that the best solution is a combination of both.

Changes To Education

Future military leaders need military education that looks at the past, present, and future with an even mix. We need to study the mistakes and successes of the old, know the strengths and weaknesses of the weapons, troops, and tactics of today, and study how to use those lessons in realistic future situations. Our services do a good job in our schools of looking at previous history since there is always an abundance of historians or "guys who were there" or those who wish they had been. But, our current schools do not sufficiently consider current and future capabilities. Typically, the study of current capabilities in our schools tends to be service oriented. This education does not

adequately present the capabilities of all branches of service and as a result, most of us have a very limited knowledge of other service capabilities. As an example, few senior officers and most junior officers cannot accurately tell the important capabilities of just one major source of combat power from each branch of service. This is a prime example of "joint ignorance". While this may seem a bit "down in the weeds", in reality, it is not. Commanders who know and understand combat systems are able to more effectively employ those systems, especially in a battlefield situation.

This level of education will be insufficient for future leaders. To sufficiently improve our professional military education for the future battlefield, services need to: start the joint process earlier, teach joint education concurrent with service education, and provide more opportunities for joint exposure.

Start Joint Education Earlier

The tendency among the services is to begin joint education at the career level (Major/Lieutenant Commander) for officers. Prior to that, officers are busy gaining proficiency at their service specialty. Since most officers are not considered for a joint tour until they reach career level, this current system seems to work. However, on the future battlefield, the need for joint knowledge and skill will extend into the lower ranks. Persons of all rank and branches of service will need to be "purple" in addition to career and top level officers. The junior enlisted and junior officers of today will be the leaders of our services in 2015. Whether officer or enlisted, to sufficiently train them for the joint battlefield of 2015, we should have started yesterday. The services must provide joint education earlier and to all ranks but must also be careful not to do so at the sacrifice of the critical service education.

Concurrent Education; A Second Language

Joint education and service education do not have to be mutually exclusive; they can be concurrent. After basic training for enlisted servicemen and initial officer's training, all other schools should incorporate joint education. Service education must be

the foundation but joint education can build upon it and even strengthen it. Our servicemen have the ability to learn and absorb much more. They are capable of learning service skills and doctrine as a primary language and joint skills and doctrine as a secondary language. Just as a child normally can learn a second language easier than an adult, our junior servicemen can learn jointness as a second language by starting earlier and using a building block approach. By the time they are senior officers and enlisted, they will be much more "fluent" in jointness. If we wait until our officers and enlisted are at the career levels before we provide joint education (as we do now), then it is more difficult to absorb the whole of jointness; it becomes more additive to service education rather than complimentary.

Joint training does not have to be confined to an academic school environment. Other forms of education such as unit training and training exercises are feasible and can significantly enhance joint learning. For example, consider the concept of including joint training with the unit training for a tank crew. The crew should still continue to be trained as they are today, but joint language and doctrine would be additive from inception. In addition to learning how to actually operate the tank, crews would be taught how a platoon of tanks is integrated into a JTF and what other forces in a JTF would normally have tanks. Concepts such as similarities and differences in methods of employment or how tank fuel and ammunition are provided for JTF forces could easily be included in unit training since it is essentially, parallel learning. Tank crews would rapidly absorb such concepts and would gain a better understanding of joint warfare which would become the initial building blocks for further joint training.

These concepts should be reinforced and expanded with each field exercise or operation. Units can easily include joint concepts in planning and internal unit exercises as well as in larger joint exercises. Units can also exchange individuals or small teams of junior troops or officers with other branches of service for small-level field exercises. Regardless of method, the point here is that it is feasible to enhance joint learning even at

the lower levels with a minimum of effort. And, as we do so, we will also help to create jointly educated units as well as individuals.

Joint Exposure

Increasing informal joint exposure at the unit level is not sufficient to imbue our services with adequate joint experience. The intent is to build a solid baseline of joint knowledge and experience at all levels. Consequently, the opportunities for joint exposure should be significantly increased at all levels of our services. It is not necessary to provide a two or three year joint tour to everyone. Junior troops and officers could have joint tours of two weeks to thirty days. Career level troops and officers would serve a three to six month joint tour. These periods of exposure would provide further building blocks and would deepen the joint knowledge and experience at levels of the services where voids in jointness currently exist. Two and three year tours would remain at career and top levels. Again, the method and the length of tours is unimportant at this point. The key issue is that joint exposure should be increased at all levels to provide better prepared forces at all levels of each branch of service.

Some would argue that the time invested in joint training is at the expense of service training and therefore, is not worthwhile, especially for junior servicemembers. However, aside from being a critical need for the future, the investment in time is not as significant as it initially appears.

Firstly, joint training could not apply to everyone. Certain specialists, for example, could not be taken from their critical service functions. For them, a joint awareness would have to suffice. The focus is on the majority of others who have skills that apply across a joint arena.

Secondly, the joint education process is a large pill to swallow if taken all at once. The one time session is a larger time investment because the student has no baseline to build upon and he is trying to learn the whole process at once. Further, what he learns is only knowledge-based learning without the additional benefit of incremental experience

and skill development unless followed by a joint tour. But, in an approach where joint education is taught in all schools at all levels, in unit training, and in short exchange tours, the impact of actual time away from service is minimized because it occurs in smaller doses over a greater period of time. Additionally, the joint education becomes that second language which can enhance service learning rather than detract from it.

Finally, the paybacks on the investment for training make it worthwhile. Joint training and exposure will produce a more well-rounded and capable servicemember; one that is better prepared to lead his unit on the future battlefield.

While the joint education process will be essential to our success on the future battlefield, it is not the end solution. Education will only provide the necessary background for our commanders to operate in the future joint environment. This knowledge becomes useless if the commander cannot quickly make critical decisions concerning forces and assets. For the proper results, we must integrate the joint knowledge into practical experience and decision making.

Changes To Decision Making

Our twenty-first century military leaders will be confronted with the "fog of war" that has always existed on the battlefield. Even though technology has seen tremendous advances throughout the years of known warfare, leaders have always faced an element of uncertainty and confusion in combat. Technology will not eliminate the fog of war for future military leaders. In fact, it may even cause the fog to increase. As a result of information technology, commanders can expect to be bombarded with endless information. As mentioned earlier, the key will be to sort the critical information from the "junk mail" as it flows at a firehose pace. Future commanders will be faced with rapid, difficult, and complicated decisions which will be based on information that will have to be extracted and simplified.

Additionally, with the future battlefield's requirement for units that are smaller, more mobile, and more lethal, our junior leaders will have to be empowered with the

authority to make critical decisions at their levels. These concepts call for changes to the current methods of decision making to sufficiently prepare our future leaders to operate in this environment. In particular, we need to change how we decide, we need to train to decide, and we need to push decision making to lower levels.

How We Decide

The two basic types of decision making are analytical and intuitive. Typically, the factors of significance and available time determine which of these two methods we employ in a decision making situation. If time permits, we typically choose an analytical approach to more significant decisions; we tend to analyze bigger, more difficult decisions. When time is critical, we tend to use a more intuitive approach to decision making, drawing on cues to make the decision that "feels" right. As military leaders, as we increase in rank and seniority, the responsibilities and decisions placed upon us become more significant, especially on the battlefield. Accordingly, our tendency to use analytical decision making often increases in the quest for perfect results. The complexity and rapid pace of the future battlefield will not allow commanders this luxury; holding out for more information for "the" solution will cause what Klein calls "paralysis by analysis".⁵ On that fast-moving battlefield, future commanders cannot afford not to decide. Timely and decisive applications of force will be critical to success.

Train To Decide

Some would suggest that this concept of intuitive decision making is just a fancy term for "flying by the seat of your pants." Klein argues that intuitive decision making is not based on wild guesses, but on the trained response to situations previously studied or experienced by the decision maker.

...Intuition refers to the ability of the expert to detect typicality and to notice events that did not happen and other anomalies that violate the pattern. This mental simulation covers the ability to see events that happened previously and events that are likely to happen in the future. The power of intuition, our

ability to see patterns, gives us situational awareness, which helps us recognize appropriate goals and relevant cues. People who are not experts will have more trouble detecting typical patterns.⁶

Two factors of Klein's premise are especially relevant to our future military leaders: experts are more effective at intuitive decision making and leaders can improve their decision making skills by training. Experts are more effective decision makers because they have a greater baseline of experiences and relevant cues to draw upon. To capitalize on this, our future leaders need to continue to become experts in their specific skills. For most, we do not become qualified experts until we approach career level. By corollary, our training and education should reflect our desire to improve our intuitive decision making as it applies to our specific skills. We need to practice our military skills, we need to practice to decide, and we need to learn to combine the two. War games are but one example of a great method for combining military skills and intuitive decision making skills. War games, whether in the form of card games, board games, computer simulations, or field exercises, provide valuable opportunities for leaders at all levels. The key is to frequently simulate stressful, rapid decision making situations which, when coupled with effective critique and analysis, will build up experience levels for our leaders to draw upon in future situations. To remain effective and current, our training in this area needs to be frequent, innovative, and targeted at multiple levels of command.

Decision Making At The Lower Levels

Some of the characteristics of the future battlefield are also part of the solution to preparing for that battlefield. The authority to make critical decisions and to conduct semi-independent actions must be pushed to the lower levels of our organizations. To be effective on a fluid battlefield, future forces will need the freedom to conduct decisive, independent action at critical points and times. They cannot be constrained by the need to ask a senior commander if they may do what they need to do. To restrain them will inhibit the inherent strengths of flexibility, mobility, and firepower. David Freedman

writes:

Marines most closely held beliefs are: (1) War is chaos, confusion, and the unexpected and (2) Because of that difficult fact, the only way to succeed as an organization is to push the ability and authority for decision making down to the Marines who are on the spot.⁷

Fortunately, a system that allows decentralized decision making and execution already exists. Current doctrine provides for the use of mission type orders and it includes specified commander's guidance and commander's intent in mission planning and execution. These are the very tools we need to provide our future forces with the controlled freedom they need on the battlefield. Information Age technology will allow commanders to quickly pass data to all levels of the command. This will allow commanders to rapidly change the mission and intent for their forces in response to rapidly developing situations. Subordinate units should, as much as possible, be given mission type orders which provide them with the flexibility to respond to situations as they change or develop during mission accomplishment. When provided with the commander's intent, junior leaders on the scene can effectively judge and apply the precise solution to the situation in accordance with the commander's desires without having to obtain additional guidance or permission. This is not a new concept; Special Operations Forces (SOF) and the U.S. Marines have been doing it successfully for years. But, the concept will become more critical to all forces in the future as the battlefield situation will change more rapidly and smaller, better equipped units will be expected to successfully respond to those changes. Similarly, TRADOC suggests:

...it will recognize the expected contribution and initiative of better-informed soldiers, capable of individual action within the overall command intent. Such shared information, where in some cases, subordinates have as much information as commanders, changes the dynamics of leader-to-led in ways yet to be fully explored and exploited.⁸

As mentioned, the difficulty with the concept of decentralized decision making and execution is not in the design. The difficulty resides in the willingness of our

commanders to employ it. Currently, as commanders, many of us have developed very participative leadership styles. We have been very involved at all levels, even if primarily in supervisory roles. Many of us have not done well enough at empowering our subordinates and then trusting them to successfully complete assigned missions. This is a tendency that future leaders must avoid. We can train our organizations (and ourselves) to perform more effectively. Organizations will develop in the manner that they are led and are trained. Commanders can train their organizations to their style and the organizations can practice this style. For example, an experienced commander's first field exercise with a new unit is apt to be a bit bumpy. But, over time, as the commander, the staff, and the troops work together more frequently, they usually become a more effective team. As commanders, this inspires our confidence in our subordinates and helps us to more effectively empower them with the freedom and flexibility they need. Of course, when we entrust tasks to others, they will make mistakes. Future commanders must refrain from the tendency to become overprotective and must allow mistakes. As a wise man once said, "Good judgment comes from experience. Experience often comes from bad judgment".⁹

In opposition, some would suggest that even the best trained commanders will still make poor decisions or miss the best decision opportunities. As well, properly educated commanders will make uneducated decisions at critical times. And so, why should we bother with this training? War is an art and not a science. At any given time, circumstances can overcome reasonable preparations. Practicing intuitive decision making skills and pushing decision making authority to lower levels will never provide error free judgment and in the latter, it will probably worsen during the initial stages. However, we need to keep the desired end state in mind. These practices are meant to develop skills in servicemembers that will make them more effective commanders on the future battlefield. The more we practice and train, the more effective they will become. Additionally, with Information Age technology, commanders have the opportunity to

literally multiply the combat effectiveness of their organizations through the use of decentralized decision making and execution. This added dimension of flexibility, which is founded upon decision making skills at all levels, will then dramatically enhance the synergism of a joint organization. According to the U.S. Marine Corps Warfighting Manual:

A military decision is not merely a mathematical computation. Decision making requires both the intuitive skill to recognize and analyze the senses of a given problem and the creative ability to devise a practical solution. This ability is the product of experience, education, intelligence, boldness, perception, and character.¹⁰

Conclusion

As we approach the twenty-first century, tremendous gains are being made in technology. Future military commanders at all levels will have unlimited information and capabilities available at their fingertips. However, these leaders are not Supermen. The benefits of such technology can quickly outrun the human capacity to successfully use them. Our leaders need a background of skills, education, and experience which will help them to successfully employ available technology. We should begin now with an education process which will teach jointness to all levels in all branches of service. This education will give commanders a better foundation from which to operate on the future battlefield.

We need to also change the way in which we make and implement decisions. Future commanders at all levels must be able to rapidly make critical decisions. Our training processes can include methods of improving rapid, intuitive decision making skills. We need to use information technology to disseminate those decisions and include guidance that will allow subordinate units to maximize flexibility through mobility and independent action.

Will this education process ensure future success? Of course not, because even the best educated may become "paralyzed" with an overabundance of information technology. Will improving our ability to make decisions ensure our future success? Of

course not, because proper decisions do not equal success; they have to be translated into successful actions. The solution for future leaders' success lies in a combination of the two proposals. A foundation of joint education, skills, and awareness, combined with the ability to make rapid, accurate decisions and then to successfully apply forces to that decision will offer the needed advantage to a future military leader.

Notes

¹ Department of the Army, TRADOC Pam 525-5 (Washington: August 1, 1994), 3-8.

² Seth Cropsey, "Is A Change In Doctrine Enough?" Proceedings, February 1995, 9.

³ D.T. Ogilvie, quoted in LtCol Donald A. Osterberg, "Information-Age Decisionmaking: Developing A Tool Kit For Future Leaders." (Military Studies Program Paper, Carlisle Barracks, Pennsylvania: 1997), 7.

⁴ Paul T. Harig, "The Digital General: Reflections On Leadership In The Post-Information Age," Parameters, Autumn 1996, 139.

⁵ Gary A. Klein, Sources of Power: How People Make Decisions, (Cambridge, Massachusetts: MIT Press 1998), 259.

⁶ Ibid., 149-150.

⁷ David H. Freedman, "Corps Values." INC. April 1998, 56.

⁸ TRADOC Pam 525-5, 3-5.

⁹ Author unknown.

¹⁰ Department of the Navy, Headquarters, United States Marine Corps, Warfighting MCDP1 (Washington, D.C.: 1997), 86.

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